

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference SCORE01/PCT	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/US04/26031	International filing date (day/month/year) 10 August 2004 (10.08.2004)	Priority date (day/month/year) 15 August 2003 (15.08.2003)	
International Patent Classification (IPC) or national classification and IPC IPC: G06F 19/00(2006.01) USPC: 700/115,109			
Applicant SCORING SYSTEMS, INC.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>11</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 24 January 2005 (24.01.2005)		Date of completion of this report 13 April 2006 (13.04.2006)	
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Form PCT/IPEA/409 (cover sheet)(April 2005)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/US04/26031

Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed.
- ☐ a translation of the international application into English, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished
- ☒ the description:
pages 1-23 as originally filed/furnished
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____
- ☒ the claims:
pages NONE as originally filed/furnished
pages* NONE as amended (together with any statement) under Article 19
pages* 24-31, 31/1-31/3 received by this Authority on 09 August 2005 (09.08.2005)
pages* NONE received by this Authority on _____
- ☒ the drawings:
pages 1-4 as originally filed/furnished
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US04/26031**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims <u>24, 46</u>	YES
	Claims <u>1-23, 25-45, 47-52</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-52</u>	NO
Industrial Applicability (IA)	Claims <u>1-52</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and Explanations (Rule 70.7)

Claims 1-23, 25-45, 47-52 lack novelty under PCT Article 33(2) as being anticipated by Swan (US 2003/0132855 A1).

Regarding claims 1-23, 25-45, 47-52 Swan discloses an item tracking system comprising a plurality of nodes geographically located in different places (Fig. 16) wherein each node receives tag-read-data corresponding to an item and communicates the tag-read-data to the designated responsible node for the item (Abstract). Swan further discloses the use of GPS (Global Positioning System) for locating and reporting items in association with a cell phone or a low-bandwidth satellite uplink system, to provide periodic updates ([0087]; [0101]). Swan further discloses a disposition action that describes a state change for the hierarchy of objects and items related to or associated with a tagged item ([0112]-[0120], please note that the item travels through different environments). Swan discloses a History and Status Query System (Fig. 3, 340) wherein the system can accumulate the history and also has a recent view of the current state ([0069]). Swan discloses RFID technology and barcode ([0031]-[0034]) which are transportable tags associated with the items for reading/writing information about the corresponding items. Swan further discloses identifying health threat associated with the item and that the item is a food product (Fig. 14 Hazardous; Fig. 16, Food).

Claims 24, 46 lack an inventive step under PCT Article 33(3) as being obvious over Swan (US 2003/0132855 A1).

As for claims 24, 46, Swan discloses the limitations of claim 16 above but fails to disclose that the item is the performance record of an athlete or the item is livestock (please note that these are only an intended use). However, Swan discloses that the item can be any physical object that might have a location ([0029]). Therefore it would have been obvious to a person of the ordinary skill in the art to use the teachings of Swan to properly track items such as a performance record or livestock because it would provide on real-time the history or performance data associated with the item.

----- NEW CITATIONS -----

US 2003/0132855 A1 (SWAN) 17 July 2003, whole document

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Claims:

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1. A system (10) for collecting and recording data (38) on an item (12a) as the item experiences changes in state over time, said system being characterized by first data input means (36) for capturing a first set of data (38) pertaining to a first state of the item (12a) in a first environment (14a), said first set of data including global positioning system data (56a-56e) corresponding to the item's location in the first state at a first time, data descriptive of the first state of the item and identification data correlated to the item (12a); second data input means (36) for capturing a second set of data (38) pertaining to a second state of the item (12b) in a second environment, (14b) said second set of data including global positioning system data (56a-56e) corresponding to the item's location in the second state at a second time, data descriptive of the second state of the item and identification data correlated to the item (12a); data processing means (22) for storing said first and second sets of data (38) in a database (26) and selectively accessing said first and second sets of data (38) from said database (26); and communication means (20) for communicating said first and second sets of data (38) to said data processing means (22), said data processing means (22) capable of generating a chronologically and/or geographically ordered, site-specific history of the item, describing each state of the item at each time and location for which data was collected.

2. The system (10) of Claim 1, further characterized by transportable data storage means (40) for receiving and storing a third set of data (38), said

transportable data storage means (40), physically accompanying the item
(12a) for a selected length of time.

3. The system (10) of Claim 2, further characterized by a third data input means (36) for reading said transportable data storage means (40) and accessing said third set of data (38).

4. The system (10) of Claim 3, further characterized by a first output means (45) for writing a fourth set of data (38) to said transportable data storage means (40, 46), said fourth set of data including global positioning system data (56a-56e) corresponding to the location of the first output means (45).

5. The system (10) of Claim 3, characterized in that said first and second sets of data (38) at least partially include data (38) observed about the item in the first (14a) and second (14b) environments, respectively.

6. The system (10) of Claim 4, characterized in that said third set of data (38) is captured by at least one of said first and second data input means (36).

7. The system (10) of Claim 4, characterized in that a portion of at least one of said first and second sets of data (38) is included in said fourth set of data (38).

8. The system (10) of Claim 7, characterized in that a portion of said third set of data (38) is included in said fourth set of data (38).

9. The system (10) of Claim 4, characterized in that said first output means (45) is selected from the group consisting of: a 2D barcode label

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printer, a Data Matrix label printer, a barcode label printer, a text label printer,
a magnetic card writer, a magnetic stick writer, a floppy disk writer, and a CD
writer.

5 10. The system (10) of Claim 3, characterized in that said third data input
means (36) is selected from the group consisting of: a 2D barcode label
reader, a Data Matrix label reader, a CCD camera, a barcode reader, a
magnetic stripe reader, a magnetic card reader, an EID tag reader, an RFID
reader, a color-coded image reader, a cell phone, a magnetic stick reader, a
CD reader, a floppy disk reader and an optical character reader.

10 11. The system (10) of Claim 2, characterized in that said transportable
data storage means (40) is selected from the group consisting of: a 2D
barcode label, a barcode label, an EID tag, an RFID, a color-coded image, a
Data Matrix label, a magnetic stripe, a magnetic card, a magnetic stick, a
ROM chip, a text label, a floppy disk and a CD disk.

15 12. The system (10) of Claim 1, characterized in that said first data input
means (36) is selected from the group consisting of: a Personal Digital
Assistant (PDA), a cell phone, a digital camera, a handheld computer, a
personal computer with keyboard, and a weighing scale.

20 13. The system (10) of Claim 1, characterized in that said data processing
means (22) includes a computer (24) programmed with database
management software.

14. The system (10) of Claim 1, characterized in that said communications means (20) includes a network and said data processing means (22) is connected to said network.

15. The system (10) of Claim 14, characterized in that said network (20) is the internet.

16. A method for tracking an item (12a) as it changes state (12a, 12b, 12c) and environment (14a, 14b, 14c) over time, said method being characterized by:

- (A) collecting and recording a first set of data (38) pertaining to an item (12a) in a first state in a first environment (14a), said first set of data including geographic position data indicative of the item's location in the first state at a first time, data descriptive of the first state of the item and identification data correlated to the item (12a);
- (B) changing at least one of the first state (12a) and the first environment (14a) of the item (12a) to a second state (12b) and a second environment (14b);
- (C) collecting and recording a second set of data (38) pertaining to the item (12a, 12b) said second set of data including geographic position data indicative of the item's location in the second state at a second time, data descriptive of the second state of the item and identification data correlated to the item (12a);
- (D) communicating the first and second sets of data (38) to a data processing system (22);

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(E) storing the first and second sets of data in a database (26) of the data processing system (22); and

5 (F) Selectively accessing at least a portion of the first and second data (38) sets, said data processing system (22) capable of generating a chronologically and/or geographically ordered, site-specific history of the item describing each state of the item at each time and location for which data was collected.

10 17. The method of Claim 16, further characterized by the step of reading a third set of data (38) from first media (40, 50) physically accompanying the item (12a).

18. The method of Claim 17, further characterized by the step of writing a fourth set of data (38) on second media (40, 50), said second media (40, 50) then being physically associated with the item (12a) to accompany the item (12a) for further changes in environment (14a, 14b).

15 19. The method of Claim 16 characterized in that said step (A) of collecting includes capturing observed data (38) concerning the item (12a) when the item (12a) is in the first environment (14a).

20 20. The method of Claim 18, characterized in that the step (A) of collecting includes capturing observed data (38) concerning the item (12a) when the item (12a) is in the first environment (14a), the step of communicating includes transmitting the first set of data (38) over the internet (20) to the data processing system (22), the step of storing includes entering the first set of data (38) into a database (26) on the data processing system (22) and the

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step of selectively accessing includes submitting a query via database management software to select data (38) from the database (26) in response to a user-defined criterion.

5 21. The method of Claim 16, characterized in that said step of accessing is conducted in the course of identifying the source of a health threat associated with the item (12a, 12b, 12c).

22. The method of Claim 21, characterized in that the item (12a) is a food product.

10 23. The method of Claim 16, characterized in that the item (12c) is a component of a composite item (12a, 12b) having additional compositional items (12b, 12c) and further comprising the steps of tracking the additional compositional items (12b, 12c) and the composite item (12a, 12b) by performing the steps (A) through (F) for each.

15 24. The method of Claim 16, characterized in that the item (12a) is the performance record of an athlete.

20 25. An item tracking system (10) for collecting and recording data (38) on an item (12a) as the item (12a) experiences changes in state over time, said item tracking system (10) being characterized by:

(A) a server computer (22) with data processing capability and a database (26), said server computer (22) connected to the internet (20);

PCT/US 04/26031 (B) a plurality of geographically separated node systems (18a, 18b, 18c) connectable to the internet (20), each of said plurality of node systems (18a, 18b, 18c) capable of capturing data (38) concerning the item (12a) as the item is processed by a plurality of different, geographically separated entities in the chain of production, said data including global positioning system data (56a-56e) corresponding to the item's location at various times and states of (22) the item (12a, 12b, 12c), data descriptive of the various states of the item and identification data correlated to the item (12a) and communicating the captured data (38) to the server (22) via the internet (20) for storage in said database (26), said server computer (22) capable of generating a chronologically and/or geographically ordered, site-specific history of said item (12a) from the data (38) captured and sent to said server (22) from said plurality of node systems (18a, 18b, 18c) and describing each state for each time and location for which data was captured.

26. The tracking system (10) of Claim 25, further characterized by a label reader (36f₁) associated with at least a portion of said plurality of node systems (18e, 18f), said label reader (36e, 36f₁) capable of reading labels (46d, 46e) physically associated with the item (12e, 12f) to obtain label data (40) and communicating that label data (40) to said server (22).

27. The tracking system (10) of Claim 26, further characterized by a label printer (45d, 45e, 45f₁, 45f₂), said label printer (45d, 45e, 45f₁, 45f₂) printing labels representative of data (38) concerning the item (12e) and thereby

permitting the item (12e) to be relabeled with data (38) that reflects an up-to-date product history.

5 28. The tracking system (10) of Claim 27, characterized in that the type of label (46d, 46e, 46f) produced by said label printer (45d, 45e, 45f₁, 45f₂) is selected from the group consisting of: 2D barcode label, Data Matrix label, barcode label and text label.

10 29. The tracking system (10) of Claim 27, characterized in that the label (46d, 46e, 46f) printed by said label printer (45d, 45e, 45f₁, 45f₂) includes the internet address of said server (22) and identification data for identifying the item (12a, 12b, 12c).

30. The tracking system (10) of Claim 25, characterized in that the captured data (38) on the item (12a, 12b, 12c) is communicated to said server (22) along with data (38) indicative of the geographic location of the item and time.

15 31. The tracking system (10) of Claim 30, wherein said at least one of said plurality of node systems (18a, 18b, 18c) includes a cell phone.

32. The tracking system (10) of Claim 31, wherein said cell phone has imaging capability.

20 33. The tracking system (10) of Claim 32, wherein said cell phone is capable of capturing and transmitting label image data over the Internet for subsequent processing by a remote computer.

34. The system (10) of Claim 1, further including display means (30) associated with at least one of said first data input means and said second data input means for displaying at least one of said first set of data and said second set of data.

5 35. The system (10) of Claim 34, wherein at least one of said first set of data (38) and said second set (38) of data includes identification data (54a-54e) pertaining to said first environment (14a, 14b, 14c) and said second environment (14a, 14b, 14c), respectively.

10 36. The system (10) of Claim 35, wherein said identification data (56a-56e) includes an internet address (54a) for connecting to a website associated with at least one of said first environment (14a, 14b, 14c) and said second environment (14a, 14b, 14c).

15 37. The system (10) of Claim 2, wherein said third set of data (38) is selectively composed of at least one of said first set of data (38) and said second set of data (38).

38. The system of Claim 14, wherein said communication means (44) includes a wireless connection to the internet (20).

39. The method of Claim 16, wherein said steps (A) and (C) of collecting and recording pertain to identification of information (38) for a person.

20 40. The method of Claim 39, wherein said information (38) is utilized to track a person for the purposes of at least one of scheduling, security and timekeeping.

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AMENDED SHEET

~~PCT/US 04/26031~~ 41. The method of Claim 16, wherein said steps (A) and (C) of collecting and recording pertain to access data (38) controlling the access of a person to a secure site.

5 42. The method of Claim 41, wherein at least one of said steps (A) and (C) of collecting includes retrieving data (38, 40) from an access token (40, 40d, 46d-46f) carried by a person.

43. The method of Claim 42, wherein said access token (40, 40d, 46d-46f) is in the form of an ID card bearing digitally recorded data (38, 40).

10 44. The system of Claim 4, wherein each change in state is associated with a function conducted by an entity on the item at a location, each function being conducted at the initiative of an entity.

15 45. The system of Claim 44, wherein said data processing means (22) can generate a report showing a trace back or trace forward from any given state, time and/or location of an item to show preceding and/or antedating states, times, locations, entities, functions and item descriptions.

46. The system of Claim 44, wherein the item is livestock and the entities include breeders, ranches, slaughter houses and retail meat outlets and the functions include breeding, raising, providing veterinary care, shipping, slaughtering, butchering, packaging and selling.

20 47. The system of Claim 4, wherein said global positioning system data is indicative of the identity of entities.

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AMENDED SHEET

48. The system of Claim 4, wherein the global positioning data includes latitude, longitude and elevation.

5 49. The system of Claim 4, wherein said first output means is selected from the group consisting of a 2D barcode label printer, a Data Matrix label printer, a barcode label printer and a text label printer, said third data input means (36) is selected from the group consisting of: a 2D barcode label reader, a Data Matrix label reader, a CCD camera, a color-coded image reader and an optical character reader and said transportable data storage means (40) is selected from the group consisting of: a 2D barcode label, a barcode label, a color-coded image, a text label and a Data Matrix label.

10 50. The system of Claim 1, wherein at least one of said first data input means and said second data input means is a cell phone with imaging capabilities, said data descriptive of said first or second state including an image of the item captured by the cell phone.

15 51. The system of Claim 3, wherein the third input means is a cell phone with imaging capabilities and said transportable storage means (40) is a label, said cell phone capturing an image of the label and transmitting the label image to said data processing means for decoding.

20 52. The system of Claim 3, wherein the third input means is a cell phone with imaging capabilities and said transportable storage means (40) is a label, said cell phone capturing an image of the label and decoding it within the cell phone using an on-board decoding program.